

MATERIAL SAFETY DATA SHEET

BOSCH BLUE

Version Number 1.0 Revision Date 02/27/2003 Page 1 of 7 Print Date *11/10/2011*

1. PRODUCT AND COMPANY IDENTIFICATION

POLYONE CORPORATION 33587 Walker Road, Avon Lake, OH 44012

| NON-EMERGENCY TELEPHONE | : | Product Stewardship (770) 271-5902 |
|-------------------------------|---|--|
| Emergency telephone number | : | CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident). |
| Product name | : | BOSCH BLUE |
| Product code | : | CC10032240 |
| Chemical Name | : | Mixture |
| CAS-No. | : | Mixture |
| Product Use | : | Industrial Applications |

2. COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

| Components | CAS-No. | Weight % |
|------------------|------------|----------|
| Carbon black | 1333-86-4 | 1 - 5 |
| Titanium dioxide | 13463-67-7 | 5 - 10 |

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

This mixture has not been evaluated as a whole. Information provided on the health effects of this product is based on individual components. All ingredients are bound and potential for hazardous exposure as shipped is minimal. However, some vapors may be released upon heating and the end-user (fabricator) must take the necessary precautions (mechanical ventilation, respiratory protection, etc.) to protect employees from exposure.

POTENTIAL HEALTH EFFECTS

| Routes of Exposure: | : Inhalation, Ingestion, Skin contact |
|----------------------------|--|
| Acute exposure | |
| Inhalation Ingestion | Resin particles, like other inert materials, can be mechanically irritating. May be harmful if swallowed. |
| Eyes | Resin particles, like other inert materials, are mechanically irritating to eyes. |
| Skin | : Experience shows no unusual dermatitis hazard from routine handling. |
| Chronic exposure | : Refer to Section 11 for Toxicological Information. |





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| Storage | | Leep containers dry and tightly nd contamination. Keep in a c | | absorption |
| 8. 1 | EXPOSURE | CONTROLS / PERSONAL | PROTECTION | |
| Respiratory protection | : N | lo personal respiratory protect | ive equipment normally r | equired. |
| Eye/Face Protection | : S | afety glasses with side-shields | S. | |
| Hand protection | : P | rotective gloves. | | |
| Skin and body protection | : L | Long sleeved clothing. | | |
| Additional Protective Measures | : S | Safety shoes. | | |
| General Hygiene Considerations | | landle in accordance with good Vash hands before breaks and | | afety practice. |
| Engineering measures | | leat only in areas with appropr ppropriate exhaust ventilation | | Provide |
| Exposure limit(s) | | | | |
| Components | Value | Exposure time | Exposure type | List: |
| Carbon black | 3.5 mg/m3 | Time Weighted Average (TWA): | Total dust. as carbon black | ACGIH |
| Carbon black | 3.5 mg/m3 | PEL: | Total dust. as carbon | OSHA Z1 |

| | _ | | black | |
|------------------|----------|-----------------------|-------------|---------|
| Titanium dioxide | 10 mg/m3 | Time Weighted Average | Dust. | ACGIH |
| | | (TWA): | | |
| Titanium dioxide | 15 mg/m3 | PEL: | Total dust. | OSHA Z1 |
| | | | | |
| | | | | |

9. PHYSICAL AND CHEMICAL PROPERTIES

| Form |
|---------------------|
| Appearance |
| Color |
| Odor |
| Melting point/range |
| Boiling Point: |
| Water solubility |

: Solid : Pellets : BLUE : Very faint : Not determined : Not applicable : Insoluble

Evaporation rate Specific Gravity Bulk density Vapor pressure Vapor density pН

: Not applicable. Not determined : Not established : : Not applicable : Not applicable : Not applicable

10. STABILITY AND REACTIVITY

Stability

: Stable.

Hazardous Polymerization

: Will not occur.



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| Conditions to avoid | : | Keep away from oxidizing agents and open flame. To avoid thermal decomposition, do not overheat. |
| Incompatible Materials | : | Incompatible with strong acids and oxidizing agents. |
| Hazardous decomposition products | : | Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), other hazardous materials, and smoke are all possible. |

11. TOXICOLOGICAL INFORMATION

This mixture has not been evaluated as a whole for health effects. Exposure effects listed are based on existing health data for the individual components which comprise the mixture.

Toxicity Overview

This product contains the following components which in their pure form have the following characteristics:

| CAS-No. | Chemical Name | Effect | Target Organ |
|------------|------------------|------------------|---------------------------|
| 1333-86-4 | Carbon black | Systemic effects | Eyes, Respiratory system. |
| 13463-67-7 | Titanium dioxide | Systemic effects | Respiratory system. |

LC50 / LD50

This product contains the following components which in their pure form have the following toxicity data:

| CAS-No. | Chemical Name | Route | Value | Species |
|-----------|---------------|-------------|---------------|---------|
| 1333-86-4 | Carbon black | Oral LD50 | >15,400 mg/kg | rat |
| | | Dermal LD50 | > 3 gm/kg | rabbit |

Carcinogenicity:

This product contains the following components which in their pure form have the following carcinogenicity data:

| CAS-No. | Chemical Name | OSHA | IARC | NTP |
|-----------|---------------|------|------|-----|
| 1333-86-4 | Carbon black | no | 2B | no |

IARC Carcinogen Classifications:

1 - The component is carcinogenic to humans.

2A - The component is probably carcinogenic to humans.

2B - The component is possibly carcinogenic to humans.

NTP Carcinogen Classifications:

1 - The component is known to be a human carcinogen.

2 - The component is reasonably anticipated to be a human carcinogen.

Additional Health Hazard Information:



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Carbon black 1333-86-4 Carcinogenicity: Many inhalation toxicologists believe that the tumor response observed in the referenced rat studies is species specific and does not correlate to human exposure. However, the IARC evaluation in Monograph Volume 65, issued in April 1996 concluded that, "There is sufficient evidence in experimental animals for the carcinogenicity of carbon black". Based on this evaluation, along with their evaluation of inadequate evidence of carcinogenicity in humans, IARC's overall evaluation is that "Carbon Black is possibly carcinogenic to humans (Group 2B). Carbon Black has not been listed as a carcinogen by the National Toxicology Program (NTP) or the Occupational Safety and Health Administration (OSHA). The National Institute of Occupational Safety and Health (NIOSH) criteria document on carbon black recommends that only carbon black with PAH (polynuclear aromatic hydrocarbon) levels greater than 0.1% be considered suspect carcinogens.

| 12. ECOLOGICAL INFORMATION |
|--|
| : Not readily biodegradable. |
| : Chemicals are not readily available as they are bound within the matrix of the polymer. |
| : Chemicals are not readily available as they are bound within the matrix of the polymer. |
| : No data available. |
| 13. DISPOSAL CONSIDERATIONS |
| : Like most thermoplastics the product can be recycled. Where possible, recycling is preferred to disposal or incineration. The generator of waste material has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal, state/provincial and local regulations. |
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| 14. TRANSPORT INFORMATION |
| |
| : Refer to specific regulation. |
| : Refer to specific regulation. |
| : Refer to specific regulation. |
| 15. REGULATORY INFORMATION |
| |
| : Classified as hazardous based on components. |
| |
| |



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16. OTHER INFORMATION

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.